I Claim:

1. A method for evaluating operation of a compression cooling system; the method comprising the steps of:

(a) in no particular order:

(1) measuring a first temperature of said refrigerant in a saturated state; and

(2) measuring a second temperature of said refrigerant in a liquid state; and

(b) calculating a difference between said first temperature and said second temperature to determine the extant amount of subcooling to which said refrigerant is subjected.

2. A method for evaluating operation of a compression cooling system as recited in Claim 1 wherein the method comprises the further step of:

(c) comparing said extant amount of subcooling with a predetermined acceptable amount of subcooling.

3. A method for evaluating operation of a compression cooling system as recited in Claim 2 wherein the method comprises the further step of:

(d) changing amount of refrigerant in said cooling system when said extant amount of subcooling differs from said predetermined acceptable amount of subcooling by greater than a predetermined amount.

4. A method for evaluating operation of a compression cooling system as recited in Claim 1 wherein the method comprises the further step of:

(c) adding refrigerant to said cooling system when said extant amount of subcooling is less than a predetermined acceptable amount of subcooling.

5. A method for evaluating operation of a compression cooling system as recited in Claim 3 wherein the method comprises the further step of:

(e) repeating steps (a) through (d) until said extant amount of subcooling differs from said predetermined acceptable amount of subcooling by less than said predetermined amount.

6. A method for evaluating operation of a compression cooling system as recited in Claim 4 wherein the method comprises the further step of:

(d) repeating steps (a) through (c) until said extant amount of subcooling differs from said predetermined acceptable amount of subcooling by less than a predetermined amount.

7. A method for evaluating refrigerant charge in a compression cooling system; said system including a first system portion in which said refrigerant is substantially always in a saturated state and a second system portion in which said refrigerant is substantially always in a liquid state; the method comprising the steps of:

(a) in no particular order:

(1) measuring a first temperature of said refrigerant in said first system portion; and

(2) measuring a second temperature of said refrigerant in said second system portion;

(b) calculating a difference between said first temperature and said second temperature to determine the extant amount of subcooling effected by said system.

8. A method for evaluating refrigerant charge in a compression cooling system as recited in Claim 7 wherein the method comprises the further step of:

(c) comparing said extant amount of subcooling with a predetermined acceptable amount of subcooling.

9. A method for evaluating refrigerant charge in a compression cooling system as recited in Claim 8 wherein the method comprises the further step of:

(d) changing amount of refrigerant in said cooling system when said extant amount of subcooling differs from said predetermined acceptable amount of subcooling by greater than a predetermined amount.

10. A method for evaluating refrigerant charge in a compression cooling system as recited in Claim 7 wherein the method comprises the further step of:

(c) adding refrigerant to said system when said extant amount of subcooling differs from said predetermined acceptable amount of subcooling by less than a predetermined amount.

11. A method for evaluating refrigerant charge in a compression cooling system as recited in Claim 9 wherein the method comprises the further step of:

(e) repeating steps (a) through (d) until said extant amount of subcooling differs from said predetermined acceptable amount of subcooling by less than said predetermined amount.

12. A method for evaluating refrigerant charge in a compression cooling system as recited in Claim 10 wherein the method comprises the further step of:

(d) repeating steps (a) through (c) until said extant amount of subcooling differs from said predetermined acceptable amount of subcooling by less than a predetermined amount.

13. A compression cooling system comprising:

(a) a compressor, an evaporator and a condenser fluidly coupled by at least one fluid carrying line containing a refrigerant;

(b) a first temperature measuring device connected with said system for measuring a first temperature of said refrigerant in a saturated state; and

(c) a second temperature measuring device connected with said system for measuring a second temperature of said refrigerant in a liquid state.

14. A compression cooling system as recited in Claim 13 wherein the system further comprises:

(d) a calculating device coupled with said first temperature measuring device and said second temperature measuring device; said calculating device calculating a difference between said first temperature and said second temperature to determine an extant amount of subcooling effected by said system.

15. A compression cooling system as recited in Claim 14 wherein the system further comprises:

(e) fluid access fittings in said fluid carrying line for effecting fluid communication with the system from without the system; said fluid access fittings being configured to accommodate a user coupling a refrigerant source with said fittings for changing charge of said refrigerant within said system when said extant amount of subcooling differs from a predetermined acceptable amount of subcooling by greater than a predetermined amount.

16. A compression cooling system as recited in Claim 15 wherein said predetermined acceptable amount of subcooling is provided to said user by a tool; said tool being external of said system.

17. A compression cooling system as recited in Claim 15 wherein said predetermined acceptable amount of subcooling is provided to said user by said calculating device.

18. A compression cooling system as recited in Claim 13 wherein the system further comprises:

(e) fluid access fittings in said at least one fluid carrying line for effecting fluid communication with the system from without the system; said fluid access fittings being configured to accommodate a user coupling a refrigerant source with said fittings for changing charge of said refrigerant within said system when said

extant amount of subcooling differs from a predetermined acceptable amount of subcooling by greater than a predetermined amount.